

Amendments to the Claims

The following Listing of Claims replaces all previous listings of claims in this application. Please cancel claims 7-11 and 19-33 without prejudice or disclaimer.

Listing of Claims:

1. (Previously presented) A zeolite material of the pentasil type comprising an alkali metal and alkaline earth metal content of not more than 150 ppm and a molar ratio of Si to Al of from 250 to 1500, wherein at least 90% of the primary particles of the zeolite material are spherical and at least 95% by weight of the spherical primary particles have a diameter of less than or equal to 1 μm .
2. (Previously presented) The zeolite material as claimed in claim 1, wherein a portion of the zeolite material has the structure type ZSM-5.
3. (Previously presented) The zeolite material as claimed in claim 1, wherein the alkali metal and alkaline earth metal content of the zeolite material is not more than 100 ppm.
4. (Previously presented) The zeolite material as claimed in claim 1, wherein the diameter of the spherical primary particles is from 50 to 250 nm.
5. (Previously presented) The zeolite material as claimed in claim 1, wherein the molar ratio of Si to Al is in the range of from 250 to 750.
6. (Previously presented) The zeolite material as claimed in claim 1, wherein the molar ratio of Si to Al is in the range of from 350 to 600.
- 7-11. (Canceled)

12. (Withdrawn - Currently amended) A process for the preparation of a zeolite material, comprising the steps

- (i) providing a mixture containing at least one SiO₂ source, at least one aluminum source and at least one template compound, wherein the mixture contains not more than 150 ppm of alkali metal and alkaline earth metal and wherein the at least one SiO₂ source and the at least one aluminum source are used in a ratio which permits the formation of a crystalline material having a molar ratio of Si to Al of from 250 to 1500;
- (ii) reacting the mixture to give a mother liquor containing crystalline material, said crystalline material containing at least a portion of at least one template compound;
- (iii) separating the crystalline material from the mother liquor; and
- (iv) removing the at least one template compound from the crystalline material,

the zeolite material comprising an alkali metal and alkaline earth metal content of not more than 150 ppm and a molar ratio of Si to Al of from 250 to 1500, wherein at least 90% of the primary particles of the zeolite material are spherical and at least 95% by weight of the spherical primary particles have a diameter of less than or equal to 1 μm.

13. (Withdrawn) The process as claimed in claim 12, wherein the SiO₂ source includes tetraalkoxysilane and the template compound includes at least one tetraalkylammonium hydroxide, and the mixture according to (i) additionally contains water.

14. (Withdrawn) The process as claimed in claim 13, wherein alcohol which is formed in the mixture according to (i) is distilled off prior to reacting the mixture according to (ii).

15. (Withdrawn) The process as claimed in claim 14, wherein the reacting the mixture according to (ii) is conducted at a temperature from 150 to 180°C in an autoclave with a reaction time of 1 to 48 hours.

16. (Withdrawn) The process as claimed in claim 12, wherein the crystalline material separated according to (iii) is dried at a temperature from 100 to 160°C and then calcined at a temperature from 450 to 700°C.

17. (Withdrawn) The process as claimed in claim 12, wherein, after step (iv), the zeolite material is exposed to water in an autoclave and is subsequently dried at a temperature from 80 to 160°C and is subsequently calcined at a temperature from 400 to 750°C.

18. (Previously presented) A zeolite material of the pentasil type obtainable by a process comprising the steps

- (i) providing a mixture containing at least one SiO₂ source, at least one aluminum source and at least one template compound, wherein the mixture contains not more than 150 ppm of alkali metal and alkaline earth metal and wherein the at least one SiO₂ source and the at least one aluminum source are used in a ratio which permits the formation of a crystalline material having a molar ratio of Si to Al of from 250 to 1500;
- (ii) reacting the mixture to give a mother liquor containing crystalline material, said crystalline material containing at least a portion of at least one template compound;
- (iii) separating the crystalline material from the mother liquor; and
- (iv) removing the at least one template compound from the crystalline material,

said zeolite material comprising an alkali metal and alkaline earth metal content of not more than 150 ppm and a molar ratio of Si to Al in a range of from 250 to 1500, wherein at least 90% of the primary particles of the zeolite material are spherical and at least 95% by weight of the spherical primary particles have a diameter in the range of from less than or equal to 1 µm.

19-33. (Canceled)